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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/771,938	02/04/2004	Zhigang Rong	873.0142.U1(US)	3776	
	7590 02/20/200 N & SMITH, PC	EXAMINER			
4 RESEARCH	DRIVE	HUANG, WEN WU			
SHELTON, CT	06484-6212		ART UNIT	PAPER NUMBER	
. ,			2618		
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SHORTENED STATUTOR	Y PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE		
3 MOI	NTHS	02/20/2007	PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary		Application	on No.	Applicant(s)				
		10/771,93	38	RONG ET AL.				
		Examiner		Art Unit				
	·	. Wen W. H	uang	2618	•			
	The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply							
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).								
Status								
1)⊠	Responsive to communication(s) filed on	2/23/05.		•				
′=	This action is FINAL . 2b) \boxtimes This action is non-final.							
	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is							
,	closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.							
Dispositi	on of Claims							
4) 🖂	Claim(s) 1-40 is/are pending in the application	ation.		•				
	4a) Of the above claim(s) is/are withdrawn from consideration.							
5)								
6)⊠	6)⊠ Claim(s) <u>1-40</u> is/are rejected.							
7)	Claim(s) is/are objected to.							
8) 🗌	Claim(s) are subject to restriction a	and/or election r	equirement.					
Application Papers								
9) The specification is objected to by the Examiner.								
10) 🗌	The drawing(s) filed on is/are: a)[_	accepted or b)	objected to by the I	Examiner.				
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).								
	Replacement drawing sheet(s) including the c	orrection is requir	ed if the drawing(s) is ob	jected to. See 37 C	FR 1.121(d).			
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.								
Priority u	ınder 35 U.S.C. § 119							
 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. 								
Attachmen	t(s)							
1) 🔀 Notic 2) 🔲 Notic 3) 🔀 Inforr	e of References Cited (PTO-892) e of Draftsperson's Patent Drawing Review (PTO-94 nation Disclosure Statement(s) (PTO-1449 or PTO/S r No(s)/Mail Date	18) SB/08)	4) Interview Summary Paper No(s)/Mail Do 5) Notice of Informal F 6) Other:	ate	O-152)			

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DETAILED ACTION

Claim Objections

Claim 25 is objected to because of the following informalities:

Claim 25 is now dependent of claim 17. However, the Examiner considers and interprets claim 25 to be dependent of claim 18 in order to be consistent with method claim 12 and in order to establish antecedent basis ("the average"). Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
- 1. Claims 1-3, 14-16, 27-29, 36 and 37 are rejected under 35 U.S.C. 102(e) as being anticipated by Arima et al. (US Pub No. 2006/0165091 A1; hereinafter "Arima")

Regarding **claim 1**, Arima teaches a method to determine a channel quality metric in a wireless communication system (see Arima, para. [0010]), comprising:

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making a measurement from a forward channel to obtain a measurement result value (see Arima, para. [0003], lines 7-12), quantizing the measurement result value in accordance with an N level quantization to obtain a code (see Arima, fig. 5 and para. [0011], lines 1-4), and reporting the code on a reverse channel (see Arima, para. [0003], lines 9-10 and fig. 6, "ST1010");

converting the reported code to a number (see Arima, fig. 7, component 104 and fig. 5; para. [0031], lines 1-5);

comparing the number to a threshold (see Arima, fig. 3, component 112 and fig 4 and para. [0035]; required by a QoS level); and

if the comparison indicates that the number may not accurately reflect the measurement result value (see Arima, fig. 4, CQI value above 3), adjusting the number using an adjustment factor (see Arima, para. [0036]).

Regarding **claim 2**, Arima also teaches a method as in claim 1, where the adjustment factor is a constant (see Arima, fig. 4, between QoS level 3 and 5).

Regarding **claim 3**, Arima also teaches a method as in claim 1, where the wireless communications system comprises a base station and a mobile station (see Arima, para. [0003], lines 7-11), and where the adjustment factor has a value that is a function of a distance between the base station and the mobile station (see Arima, para. [0049]; because the packet discarding rate is a function of a distant between the MS

and the BS; therefore, the corrected offset value is a function of a distant between the MS and the BS).

Regarding **claim 14**, Arima teaches a wireless communication system, comprising:

a mobile station comprising circuitry and a computer program controlling operation of the circuitry to make a measurement from a forward channel (see Arima, para. [0003], lines 7-12) to obtain a measurement result value, to quantize the measurement result value in accordance with an N level quantization to obtain a code (see Arima, fig. 5 and para. [0011], lines 1-4), and to report the code on a reverse channel (see Arima, para. [0003], lines 9-10 and fig. 6, "ST1010"); and

a base station comprising circuitry and a computer program controlling operation of the circuitry to convert the code to a number (see Arima, fig. 7, component 104 and fig. 5; para. [0031], lines 1-5), to compare the number to a threshold (see Arima, fig. 3, component 112 and fig 4 and para. [0035]; required by a QoS level) and, if the comparison indicates that the number may not accurately reflect the measurement result value (see Arima, fig. 4, CQI value above 3), to adjust the number using an adjustment factor (see Arima, para. [0036]).

Regarding **claims 15 and 16**, the dependent claims are interpreted and rejected for the same reasons as set forth above in claims 2 and 3, respectively.

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Regarding claim 27, Arima teaches a network infrastructure component of a wireless communication system (see Arima, fig. 1, component 100 and para. [0010]), comprising circuitry and a computer program controlling operation of the circuitry to receive a code from a mobile station (see Arima, para. [0003], lines 9-10 and fig. 6, "ST1010"), the code being indicative of a quantized result (see Arima, fig. 5 and para. [0011], lines 1-4) of a measurement result value obtained from a forward channel (see Arima, para. [0003], lines 7-12), to convert the code to a number (see Arima, fig. 7, component 104 and fig. 5; para. [0031], lines 1-5), to compare the number to a threshold (see Arima, fig. 3, component 112 and fig 4 and para. [0035]; required by a QoS level) and, if the comparison indicates that the number may not accurately reflect the measurement result value (see Arima, fig. 4, CQI value above 3), to adjust the number using an adjustment factor (see Arima, para. [0036]).

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Regarding claims 28 and 29, the dependent claims are interpreted and rejected for the same reasons as set forth above in claims 2 and 3, respectively.

Regarding **claim 37**, Arima teaches a wireless network apparatus as in claim 27, where the adjustment factor has a value that is one of a constant (see Arima, fig. 4, between QoS level 3 and 5); a function of a distance between a base station and the mobile station; and determined by the mobile station and reported to a base station.

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Regarding **claim 36**, Arima teaches a wireless network apparatus comprising means for receiving a code from a mobile station (see Arima, para. [0003], lines 9-10 and fig. 6, "ST1010"), the code being indicative of a quantized result (see Arima, fig. 5 and para. [0011], lines 1-4) of a measurement result value obtained from a forward channel (see Arima, para. [0003], lines 7-12), and for converting the code to a number (see Arima, fig. 7, component 104 and fig. 5; para. [0031], lines 1-5), comparing the number to a threshold (see Arima, fig. 3, component 112 and fig 4 and para. [0035]; required by a QoS level) and, if the comparison indicates that the number may not accurately reflect the measurement result value (see Arima, fig. 4, CQI value above 3), for adjusting the number using an adjustment factor (see Arima, para. [0036]).

2. Claims 31 and 38 are rejected under 35 U.S.C. 102(e) as being anticipated by Kim et al. (US Pub No. 2003/0137955 A1; hereinafter "Kim")

Regarding **claim 31**, Kim teaches a mobile station component of a wireless communication system (see Kim, para. [0030]), comprising circuitry and a computer program controlling operation of the circuitry

to make a measurement from a forward channel to obtain a measurement result value (see Kim, fig. 1, component 110, fig. 4, component 410; para. [0039], lines 1-4),

to quantize the measurement result value in accordance with an N level quantization to obtain a code (see Kim, fig. 1, component 120, fig. 4, component 430; para. [0039], lines 7-11),

to report the code on a reverse channel to a wireless communication system infrastructure component (see Kim, fig. 1, component 150, fig. 4, component 450; para. [0039], lines 13-14), and

to determine a value of an adjustment factor for use by the infrastructure component when processing the code by being responsive to a period of time when the obtained codes do not accurately reflect actual measurement result values (see Kim, fig. 4, component 460; para. [0040], lines 2-4) to determine a difference between individual ones of actual measurement result values (measured C/I) and a threshold measurement result value (previously stored C/I), to average the difference values (see Kim, fig. 4, component 480; para. [0040], lines 8-12; recursive average) and to report the average of the difference values as the adjustment factor to the infrastructure component (see Kim, fig. 7, component 860; para. [0049], lines 3-4).

Regarding **claim 38**, Kim teaches a wireless network apparatus (see Kim, para. [0030]) comprising

means for making a measurement from a received channel to obtain a measurement result value (see Kim, fig. 1, component 110, fig. 4, component 410; para. [0039], lines 1-4);

means for quantizing the measurement result value in accordance with an N level quantization to obtain a code (see Kim, fig. 1, component 120, fig. 4, component 430; para. [0039], lines 7-11); and

means for reporting the code to a wireless communication system infrastructure component (see Kim, fig. 1, component 150, fig. 4, component 450; para. [0039], lines 13-14), further comprising

means for determining a value of an adjustment factor for use by the infrastructure component when processing the code, said value determining means being responsive to an occurrence of a period of time when an obtained code does not accurately reflect actual measurement result values (see Kim, fig. 4, component 460; para. [0040], lines 2-4) for determining a difference between individual ones of actual measurement result values (measured C/I) and a threshold measurement result value (previously stored C/I), for averaging the difference values (see Kim, fig. 4, component 480; para. [0040], lines 8-12; recursive average) and for reporting the average of the difference values as the adjustment factor to the infrastructure component (see Kim, fig. 7, component 860; para. [0049], lines 3-4).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 3. Claims 4, 6, 7, 9, 10, 17, 19, 2022, 23 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arima as applied to claims 1, 14 and 27, respectively above, and further in view of Gaal (US Pub No. 2004/0203475 A1).

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Regarding **claim 4**, Arima teaches a method as in claim 1, where the wireless communications system comprises a base station (see Arima, fig. 1) and a mobile station (see Arima, para. [0003], lines 9-10).

Arima is silent to teaching that where the adjustment factor has a value that is determined by the mobile station and reported to the base station. However, the claimed limitation is well known in the art as evidenced by Gaal.

In the same field of endeavor, Gaal teaches a method where the adjustment factor has a value that is determined by the mobile station and reported to the base station (see Gaal, fig. 2; differential value 208; para. [0025], lines15-16).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teaching of Arima and Gaal in order to provide efficient decoding of a reported channel quality indicator (see Gaal, para. [0005]).

Regarding claim 6, Arima teaches a method as in claim 1.

Arima is silent to teaching that where N is equal to 16. However, the claimed limitation is well known in the art as evidenced by Gaal.

In the same field of endeavor, Gaal teaches a method where N is equal to 16 (see Gaal, para. [0027]; TABLE 1).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teaching of Arima and Gaal in order to

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provide efficient decoding of a reported channel quality indicator (see Gaal, para.

[0005]).

Regarding claim 7, Arima teaches a method as in claim 1.

Arima is silent to teaching that where the threshold is equal to -16.25 dB.

However, the claimed limitation is well known in the art as evidenced by Gaal.

In the same field of endeavor, Gaal teaches that where the threshold is equal to - 16.25 dB (see Gaal, para. [0028]; TABLE 2; "0000").

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teaching of Arima and Gaal in order to provide efficient decoding of a reported channel quality indicator (see Gaal, para. [0005]).

Regarding **claim 9**, Arima teaches a method as in claim 1.

Arima is silent to teaching that where making a measurement from the forward channel measures a pilot channel. However, the claimed limitation is well known in the art as evidenced by Gaal.

In the same field of endeavor, Gaal teaches that where making a measurement from the forward channel measures a pilot channel (see Gaal, para. [0034], lines 11-15).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teaching of Arima and Gaal in order to

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provide efficient decoding of a reported channel quality indicator (see Gaal, para. [0005]).

Regarding **claim 10**, the combination of Arima and Gaal also teaches a method as in claim 9, where making a measurement determines a value for (Ec/Nt).sub.Pilot (see Gaal, para. [0034], lines 11-15).

Regarding claims 17, 19, 20, 22 and 23, the dependent claims are interpreted and rejected for the same reasons as set forth above in claims 4, 6, 7, 9 and 10, respectively.

Regarding **claim 30**, the dependent claim is interpreted and rejected for the same reason as set forth above in claim 4.

4. Claims 32, 33 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim as applied to claims 31 and 38, respectively above, and further in view of Gaal.

Regarding claim 32, Kim teaches a mobile station component as in claim 31.

Kim is silent to teaching that where N is equal to 16 and where the threshold measurement result value is equal to -15.5 dB. However, the claimed limitation is well known in the art as evidenced by Gaal.

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In the same field of endeavor, Gaal teaches a method where N is equal to 16 (see Gaal, para. [0027]; TABLE 1; "0000").

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teaching of Arima and Gaal in order to provide efficient decoding of a reported channel quality indicator (see Gaal, para. [0005]).

Regarding claim 33, Kim teaches a mobile station component as in claim 31.

Kim is silent to teaching that where the measurement is made from a pilot channel to determine a value for (Ec/Nt).sub.Pilot. However, the claimed limitation is well known in the art as evidenced by Gaal.

In the same field of endeavor, Gaal teaches that where the measurement is made from a pilot channel to determine a value for (Ec/Nt).sub.Pilot (see Gaal, para. [0034], lines 11-15).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teaching of Arima and Gaal in order to provide efficient decoding of a reported channel quality indicator (see Gaal, para. [0005]).

Regarding **claim 39**, the dependent claim is interpreted and rejected for the same reason as set forth above in claim 33.

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5. Claims 5, 8, 18 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arima and Gaal as applied to claims 4 and 17, respectively above, and further in view of Kim.

Regarding **claim 5**, the combination of Arima and Gaal teaches a method as in claim 4.

The combination of Arima and Gaal is silent to teaching that where the adjustment factor is computed by the mobile station by: during a period of time when the obtained codes do not accurately reflect the actual measurement result values, determining a difference between individual ones of actual measurement result values and a threshold measurement result value; averaging the difference values; and reporting the average of the difference values as the adjustment factor to the base station. However, the claimed limitation is well known in the art as evidenced by Kim.

In the same field of endeavor, Kim teaches a method where the adjustment factor is computed by the mobile station by: during a period of time when the obtained codes do not accurately reflect the actual measurement result values (see Kim, fig. 4, component 460; para. [0040], lines 2-4), determining a difference between individual ones of actual measurement result values (measured C/I) and a threshold measurement result value (previously stored C/I); averaging the difference values (see Kim, fig. 4, component 480; para. [0040], lines 8-12; recursive average); and reporting the average of the difference values as the adjustment factor to the base station (see Kim, fig. 7, component 860; para. [0049], lines 3-4).

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Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teaching of Arima and Gaal with the teaching of Kim in order to estimate a forward channel quality without a reduction in efficiency of a reverse link in the communication system (see Kim, para. [0009]).

Regarding **claim 8**, the combination of Arima, Gaal and Kim also teaches a method as in claim 5, where the threshold measurement result value is equal to -15.5 dB (see Gaal, para. [0027], "0000").

Regarding **claims 18 and 21**, the dependent claims are interpreted and rejected for the same reasons as set forth above in claims 5 and 8, respectively.

6. Claims 34, 35 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim as applied to claims 31 and 38 above, and further in view of Holtzman (US Pub No. 2004/0057394 A1; hereinafter "Holtzman")

Regarding claim 34, Kim teaches a mobile station component as in claim 31.

Kim is silent to teaching that where the mobile station component reports the value of the adjustment factor at intervals that are longer than intervals between the mobile station making a full channel quality indicator (CQI) report. However, the claimed limitation is well known in the art as evidenced by Holtzman.

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In the same field of endeavor, Holtzman teaches a mobile station, where the mobile station component reports the value of the adjustment factor at intervals that are longer than intervals between the mobile station making a full channel quality indicator (CQI) report (see Holtzman, para. [0043], lines 13-19).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teaching of Kim with the teaching of Holtzman in order to verify the accuracy and reliability of the quality feedback information (see Holtzman, para. [0005], lines 10-12).

Regarding claim 35, Kim teaches a mobile station as in claim 31.

Kim is silent to teaching that where the mobile station component reports the value of the adjustment factor at intervals that are specified to the mobile station component in signaling received from a base station. However, the claimed limitation is well known in the art as evidenced by Holtzman.

In the same field of endeavor, Holtzman teaches a mobile station, where the mobile station component reports the value of the adjustment factor at intervals that are specified to the mobile station component in signaling received from a base station (see Holtzman, para. [0043], lines 13-19).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teaching of Kim with the teaching of Holtzman in order to verify the accuracy and reliability of the quality feedback information (see Holtzman, para. [0005], lines 10-12).

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Regarding claim 40, Kim teaches a wireless network apparatus as in claim 38.

Kim is silent to teaching that where said value determining means reports the value of the adjustment factor at intervals that are at least one of: longer than intervals between making a full channel quality indicator (CQI) report; and specified to the mobile station component in signaling received from a base station. However, the claimed limitation is well known in the art as evidenced by Holtzman.

In the same field of endeavor, Holtzman teaches a wireless network apparatus where said value determining means reports the value of the adjustment factor at intervals that are at least one of: longer than intervals between making a full channel quality indicator (CQI) report; and specified to the mobile station component in signaling received from a base station (see Holtzman, para. [0043], lines 13-19).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teaching of Kim with the teaching of Holtzman in order to verify the accuracy and reliability of the quality feedback information (see Holtzman, para. [0005], lines 10-12).

7. Claims 11, 13, 24 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arima and Gaal as applied to claims 4 and 17, respectively above, and further in view of Holtzman.

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Regarding claim 11, the combination of Arima and Gaal teaches a method as in claim 4.

The combination of Arima and Gaal is silent to teaching that where reporting the value of the adjustment factor to the base station occurs at intervals that are longer than intervals between the mobile station making a full channel quality indicator (CQI) report to the base station. However, the claimed limitation is well known in the art as evidenced by Holtzman.

In the same field of endeavor, Holtzman teaches a method where reporting the value of the adjustment factor to the base station occurs at intervals that are longer than intervals between the mobile station making a full channel quality indicator (CQI) report to the base station (see Holtzman, para. [0043], lines 13-19).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teaching of Arima and Gaal with the teaching of Holtzman in order to verify the accuracy and reliability of the quality feedback information (see Holtzman, para. [0005], lines 10-12).

Regarding claim 13, the combination of Arima and Gaal teaches a method as in claim 4.

The combination of Arima and Gaal is silent to teaching that where reporting the value of the adjustment factor to the base station occurs at intervals that are specified to the mobile station in signaling received from the base station. However, the claimed limitation is well known in the art as evidenced by Holtzman.

In the same field of endeavor, Holtzman teaches a method where reporting the value of the adjustment factor to the base station occurs at intervals that are specified to the mobile station in signaling received from the base station(see Holtzman, para. [0043], lines 13-19).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teaching of Arima and Gaal with the teaching of Holtzman in order to verify the accuracy and reliability of the quality feedback information (see Holtzman, para. [0005], lines 10-12).

Regarding **claims 24 and 26**, the dependent claims are interpreted and rejected for the same reasons as set forth above in claims 11 and 13, respectively.

8. Claims 12 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arima, Gaal and Kim as applied to claims 5 and 18, respectively above, and further in view of Holtzman.

Regarding **claim 12**, the combination of Arima, Gaal and Kim teaches a method as in claim 5.

The combination of Arima, Gaal and Kim is silent to teaching that where reporting the value of the adjustment factor to the base station occurs at intervals that are longer than intervals between the mobile station making a full channel quality indicator (CQI)

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report to the base station. However, the claimed limitation is well known in the art as evidenced by Holtzman.

In the same field of endeavor, Holtzman teaches a method where reporting the value of the adjustment factor to the base station occurs at intervals that are longer than intervals between the mobile station making a full channel quality indicator (CQI) report to the base station (see Holtzman, para. [0043], lines 13-19).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teaching of Arima, Gaal and Kim with the teaching of Holtzman in order to verify the accuracy and reliability of the quality feedback information (see Holtzman, para. [0005], lines 10-12).

Regarding **claim 25**, the dependent claim is interpreted and rejected for the same reason as set forth above in claim 12.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Miyoshi et al. (US Pub No. 2003/0022629 A1) teach a CQI table rewriting method.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wen W. Huang whose telephone number is (571) 272-7852. The examiner can normally be reached on 10am - 6pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay A. Maung can be reached on (571) 272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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